

CLAIMS

1. A parts supplying system comprising a top tape carrying portion for releasing a top tape pasted onto a carrier tape from the carrier tape to carry when a parts housed in the carrier tape is supplied by feeding intermittently a taped-component, in which the top tape having an adhesive face on both end portions in a width direction is pasted releasably on the carrier tape in which the parts is stored, to a parts supplying position,

wherein the top tape carrying portion includes a tape lifting portion for lifting a predetermined length of the top tape by almost 90 degree to direct respective adhesive faces on both ends inwardly, a tape folding portion for folding the top tape by tilting a lifted top tape toward a not-lifted top tape, and a tape discharging portion for feeding the folded top tape every predetermined pitch.

2. The parts supplying system according to claim 1, wherein the tape lifting portion consists of at least one lifting roller, the lifting roller is a roller having a collar on both ends, a dimension between both collars is almost equal to a width dimension of a not-lifted top tape, the released top tape is passed on the lifting roller to direct an adhesive face upwardly, and the lifting roller lifts up the top tape that is passed on the collars along the collars by almost 90 degree, and

the tape folding portion consists of a folding roller, the folding roller is positioned in an opposite direction to a direction along which the top tape is lifted to apply a tension to the not-lifted top tape and then folds the top tape by

tilting the lifted top tape toward the not-lifted top tape.

3. The parts supplying system according to claim 2, wherein a part of the collars of the lifting roller is notched, the top tape is kept in a flat state in a collar-notched portion, and the top tape that is passed on the collars is lifted along the collars by almost 90 degree in a collar-not-notched portion.

4. The parts supplying system according to claim 2, wherein the folding roller and the lifting roller have an almost identical shape respectively.

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5. The parts supplying system according to claim 2, wherein a crease roller that engages with the released top tape before the top tape comes up to the lifting roller is provided, the crease roller contacts to a surface of the top tape having the adhesive face, and a width of the crease roller is almost identical to a dimension between both collars.

6. A parts supplying method of releasing a top tape pasted onto a carrier tape from the carrier tape to carry when a parts housed in the carrier tape is supplied by feeding intermittently a taped-component, in which the top tape having an adhesive face on both end portions in a width direction is pasted releasably on the carrier tape in which the parts is stored, to a parts supplying position,

wherein a predetermined length of the released top tape is lifted by almost 90 degree to direct respective adhesive faces on both ends of the top tape inwardly, the top tape is folded by tilting a lifted top tape toward a not-lifted top tape, and the folded top tape is fed every predetermined pitch.

7. (Amended)

A parts supplying system capable of taking out an electronic parts from a housing portion by releasing a top tape from a carrier tape, while moving the carrier tape which has the housing portion for the electronic parts and a surface of which is covered with the releasable top tape in a longitudinal direction, to wind on a reel member,

wherein the reel member includes

a winding drum detachably attached to a driving shaft, and

a guide flange formed on one end face of the winding drum and having an opening portion through which a side surface of the top tape wound on the winding drum is pushed directly with a finger.

8. (Amended) A parts supplying system according to claim 7,
wherein the reel member includes

a pair of winding drums detachably attached to a driving shaft that rotates/drives the reel member, having a winding surface on respective outer peripheral surfaces, and divided in two in an axial direction, one part being detachably attached to the driving shaft, and

a guide flange formed on one end face of one winding drum,
whereby the top tape is wound on winding surfaces of the pair of winding drums.”

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9. (Amended) A parts supplying system capable of taking out an electronic parts from a housing portion by releasing a top tape from a carrier tape, while moving the carrier tape which has the housing portion for the electronic parts and a surface of which is covered with the releasable top tape in a longitudinal direction, to wind on a reel member,

wherein the reel member includes

a pair of winding drums detachably attached to a driving shaft that rotates/drives the reel member, having a winding surface on respective outer peripheral surfaces, and divided in two in an axial direction, one part being detachably attached to the driving shaft, and

a guide flange formed on one end face of one winding drum,

whereby the top tape is wound on winding surfaces of the pair of winding drums,

the pair of winding drums have a tapered winding surface whose outer diameter is increased large in a direction that goes away from the guide flange, and

an outer diameter of an end face of the other winding drum opposing to the other end face of one winding drum is smaller than an outer diameter of the other end face of one winding drum.

10. (Amended) A parts supplying system according to Claim 7,

wherein the reel member includes

a winding drum detachably attached to a driving shaft that rotates/drives the reel member and having a recess portion that is hollowed

inwardly in a radial direction in a part of a circumference, and
a guide flange formed on one end face of the winding drum.

11. (Amended) A parts supplying system capable of taking out an electronic parts from a housing portion by releasing a top tape from a carrier tape, while moving the carrier tape which has the housing portion for the electronic parts and a surface of which is covered with the releasable top tape in a longitudinal direction, to wind on a reel member,

wherein the reel member includes

a winding drum detachably attached to a driving shaft that rotates/drives the reel member, and

a guide flange formed on one end face of the winding drum,

whereby the winding drum and the guide flange are bent in removing from the driving shaft to position the winding drum on an inner side and the guide flange on an outer side.

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12. The parts supplying system according to any one of claim 7, 10 or 11, wherein the winding drum has a tapered winding surface whose outer diameter is increased large in a direction that goes away from the guide flange.

13. The parts supplying system according to claim 10, wherein inner wall surfaces opposing to on both ends of the recess portion in a circumferential direction are formed as a tapered surface that expands outwardly in a radial direction.

14. The parts supplying system according to claim 10, wherein an opening portion through which a side surface of the top tape wound on the winding drum is pushed is formed in the guide flange, and

the opening portion and the recess portion are arranged on a straight line in the radial direction of the guide flange.

15. The parts supplying system according to any one of claim 7, 8, 10 or 11, wherein an inner side surface of the guide flange is formed as an inclined surface that reduces a thickness of the guide flange outwardly in the radial direction of the guide flange.